

**We claim:**

1. A method for reducing consumption power of terminals communicating with each other using a beacon interval divided into an Announcement Traffic Indication Message (ATIM) window period and a doze state period according to IEEE standard 802.11 on Distributed Coordinated Function(DCF) based wireless networks, the method comprising the steps of:

(a) dividing an ATIM window period into an Earlier Time Slot (ETS) section and a Later Time Slot (LTS) section which are distinguished from each other;

(b) when a certain terminal has a data packet to be sent to another terminal, transmitting a beacon to each terminal during the ETS section, and when the terminal has no data packet to be sent to that other terminal, transmitting the beacon to each terminal during the LTS section; and

(c) when a terminal has received the beacon during the LTS section, allowing it to immediately change its state to the doze state without waiting for the doze state period.

2. The method as claimed in claim 1, wherein the ETS and LTS sections are maximum back-off time defined by IEEE standard 802.11.